AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE "J"	PAGE OF PAGES 1 | 3

2. AMENDMENT/MODIFICATION NO.	3.EFFECTIVE DATE	4. REQUISITION/PURCHASE REG. NO.	5. PROJ NO. *(If applicable)*
P00008	6 MARCH 2006	N/A	

6. ISSUED BY CODE	N00164	7. ADMINISTERED BY *(If other than Item 6)* CODE	S1002A
CONTRACTING OFFICER NAVSURFWARCENDIV 300 HWY 361 CRANE IN 47522-5001 BUYER/SYMBOL: (b)(6) PHONE: (b)(6)		DCM ORLANDO 3555 MAGUIRE BOULEVARD ORLANDO FL 32803-3799	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, State and ZIP Code)*		9A. AMENDMENT OF SOLICITATION NO.
LITTON LASER SYSTEMS, INC		
LASER SYSTEMS 2787 SOUTH ORANGE BLOSSOM TRAIL		9B. DATED *(SEE ITEM 11)*
ORLANDO FL 32860-9555 ATTN: (b)(6)	X	10A. MODIFICATION OF CONTRACT/ ORDER NO. N00164-03-C-8519
TIN NO.		10B. DATED *(SEE ITEM 13)*
CAGE CODE 34860 FACILITY CODE		29 SEPT 2003

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[ ] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [X] is extended, [ ] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER . If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS AND CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation data, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a) MUTUAL AGREEMENT
	D. OTHER *(Specify type of modification and authority.)*

E. IMPORTANT: Contractor ( ) is not, (x) is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organization by UCF section headings, including solicitation/contract subject matter where feasible.)*

This is a firm fixed price supply contract with progress payments. As delineated on page 2 herein, this contract modification authorizes accelerated deliveries, adds GFM and associated clauses, and corrects administrative errors on P00007. The total contract price remains unchanged at $21,985.000.00

Except as provided herein, all terms and conditions referenced in Item 9A and 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*	16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*
(b)(6) Sr Contracts Admin	(b)(6) CONTRACTING OFFICER

15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED
(b)(6)	9 MAR 2006	(b)(6)	9 Mar 06

PREVIOUS EDITION UNUSABLE

STANDARD FORM 30 (REV83)
Prescribed by GSA
FAR (48 CFR) 53.243

1. SECTION "F" DELIVERIES OR PERFORMANCE

ADD: Accelerated Deliveries are acceptable at no additional cost to the Government

ADD BY REFERENCE:	FAR Subsection	Title	Date
	52.247-55	FOB Point for Delivery of Government-Furnished Property	June 2003

2. SECTION "H" SPECIAL CONTRACT REQUIREMENTS

ADD:
5252.245-9108 GOVERNMENT FURNISHED PROPERTY (PERFORMANCE) (SEP 1990)

The Government will provide only that property set forth below, notwithstanding any term or condition of this contract to the contrary. The Government will furnish the following for use in the performance of this contract:

P/N	Serial Number	Nomenclature	Qty	VALUE	DATE TO VENDOR
00-1112-9278	N/A	IPL MFG SOFLAM TRIPOD	5 EACH	$3,200.00 EA $16,000.00 TOTAL	ON OR BEFORE 1 FEB 2006
17835-201	99543	AN/PAS-21 Enhanced Targeting Sight System	1 EACH	$59,500.00	21 DEC 2004
61000015-1	N/A	Battery Bag and Cable	1 EACH	$300.00	05 JAN 2006

The GFP listed above will be furnished for use in the performance of this contract. The GFP is to be returned to NSWC Crane No Later Than 30 APRIL 2006.

5252.245-9109 GOVERNMENT-FURNISHED PROPERTY (INCORPORATION) (SEP 1990)

The Government will provide only that property set forth below, notwithstanding any term or condition of this contract to the contrary. Upon Contractor's written request to the cognizant Technical Program Manager, via the cognizant Contract Administration Office, the Government will furnish the following for incorporation in the equipment to be delivered under Item(s) of this contract:

P/N	Serial Number	Nomenclature	Qty	VALUE	DATE TO VENDOR ON OR BEFORE
61000100-9	0001*	AN/PEQ-1C PROTOTYPE	1	$150K	05 JAN 2006
61000100-9	0002	AN/PEQ-1C PROTOTYPE	1	$150K	15 MAR 2006
61000100-9	0003	CLIN 0007 DELIVERABLE	1	$150K	30 APRIL 2007

*S/N 0001 is authorized for non-destructive testing prior to upgrade to AN/PEQ-1C.

3. ADD the NSN 5860-01-737-7393 to all data required and to be delivered for the AN/PEQ-1C Laser Marker (SOFLAM) (A001, A002, A004, A005, A006, A007, A008, A009, A010, A011, and A012.)

4. ATTACHMENTS:
1)STATEMENT OF WORK INCLUSIVE OF AN/PEQ-1C
2) PERFORMANCE SPECIFICATION PS/06/805/042
3) CONTRACT DATA REQUIREMENTS LISTS:

DELETE: A0013 **Depot Support**

SEE REVISED SOW AND SPECIFICATION ATTACHED

STATEMENT OF WORK
FOR
SPECIAL OPERATIONS FORCES LASER MARKER
(SOFLAM)

1.0 SCOPE. This Statement of Work (SOW) sets forth the United States Special Operations Command (USSOCOM) requirements for the procurement of a Special Operations Forces Laser Marker (SOFLAM), production version of the AN/PEQ-1B (Performance Specification PS/03/805/027) and the AN/PEQ-1C (Performance Specification PS/06/805/042. This SOW provides for the procurement, test, system spares, configuration management (CM), and technical documentation for SOFLAM. (b)(3) (b)(3) The SOFLAM Laser Marker, AN/PEQ-1B and AN/PEQ-1C System shall consist of the following hardware configuration:

AN/PEQ-1B SOFLAM Laser Marker System

(1) (b)(3)
(2) Lens paper, NSN 6640-00-663-0832 (Drawing NNN-P-40 or SM-B-955651)
(3) Cleaning compound and Material Safety Data Sheet, NSN 6850-00-392-9751 (Drawing A-A-59199 or SM-B-852137)
(4)
(5) (b)(3)
(6)
(7) Operator's manual
(8) Field carrying case for the above items

AN/PEQ-1C SOFLAM Laser Marker System

(1) (b)(3)
(2) Lens paper, NSN 6640-00-663-0832 (Drawing NNN-P-40 or SM-B-955651)
(3) Cleaning compound and Material Safety Data Sheet, NSN 6850-00-392-9751 (Drawing A-A-59199 or SM-B-852137)
(4)
(5) (b)(3)
(6)
(7) Operator's manual
(7) Field carrying case for the above items
(8) Battery Bag

2.0 LISTING OF APPLICABLE DOCUMENTS. The following specifications and standards form a part of this SOW to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the latest issue of the Department of Defense Index of Specifications and Standards (DODISS) as provided from the Defense Standardization Program (DSP) World Wide Web site at http://www.dsp.dla.mil and supplement thereto.

2.1 Performance Specification

PS/03/805/027	Performance Specification, AN/PEQ-1B dtd 24 Jun 03 (Revised 03 Nov 03)
PS/06/805/042	Performance Specification, AN/PEQ-1C REV A dtd 22 Feb 06

2.2 Military Standards

MIL-STD-129P(3)	Military Marking for Shipment and Storage dtd 29 Oct 04
MIL-PRF-49506 NOT 1	Logistics Management Information dtd 19 Jan 05
MIL-STD-2073/1D(1)	DOD Standard Practice for Military Packaging dtd 10 May 02

MIL –STD-461E	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment dtd 29 Aug 99
MIL-STD-810F	Environmental Test Methods
TBD	Electrical Circuit, 28 Volt DC Transient Characteristics
MIL-STD-1425A	Safety Design Requirements for Military Lasers and Associated Support Equipment Dtd 30 Aug 91
MIL-STD-1913(1) NOT 1	Dimensioning of Accessory Mounting Rail for Small Arms Weapons dtd 20 Apr 04
MIL-STD-13231	Marking of Electronic Items dtd 02 Nov 99
MIL-STD-130M	Identification Marking of U.S. Military Property dtd 02 DEC 05

2.3 Department of Defense Handbooks

MIL-HDBK-61A	Configuration Management Guidance dtd 7 Feb 01
MIL-DTL-24784/4B	Commercial Off-the-Shelf Equipment Manual Rqmts Dtd 15 Feb 02
MIL-HDBK-454A	General Guidelines for Electronic Equipment dtd 03 Nov 00

(b)(3)

2.4 Other Government documents, drawings, and publication.
The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

SW230-AE-MMO-010	Laser Marker (SOFLAM/USMC GLTD II) AN/PEQ-1B, 28 Aug 2003

Federal Standards

FED-STD-595B (1)	Colors Used in Government Procurement dtd 11 Jan 94
ANSI Z136.1-2000	American National Standard for Safe Use of Lasers

2.5 Non-Government Standards and Other Publications.
The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

ASQC Q9001	Quality Systems – Model for Quality Assurance In-Depth, Development, Production, Installation and Servicing dtd 1 Aug 94

(b)(3)

2.6 Order of Precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence. Nothing in this document shall supersede applicable Federal, State, or Local Laws and regulations unless a specific exemption has been obtained.

2.7 Availability of DoD Documents. Government specifications, standards and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. Non-Government Publications are available from the National Standards Institute, 11 West 42nd Street, New York, NY 10036.

3.0 REQUIREMENTS.

3.1 General. The Contractor shall provide production laser system in accordance with (IAW) the performance requirements contained in the Performance Specification reference in paragraph 2.1. The SOFLAM laser system shall include an Operator's/Maintenance Manual with each delivered system. The AN/PEQ-1C (b)(3)

(b)(3)

(b)(3)

3.1.1 Contract Progress Monitoring. The Contractor shall establish a monitoring system to ensure full compliance with the contract requirements.

3.2 QUALITY.

3.2.1 Quality Program. The Contractor shall establish, implement, document and maintain a quality system that ensures conformance to contractual requirements and meets the requirements of ASQC Q9001, or an equivalent quality system model during performance of this contract.

3.2.2 Quality Conformance Inspections and Tests. The Contractor shall conduct Quality Conformance Inspections and Tests IAW the Contractor's Acceptance Test Procedures ATP71003100 and ATP71003001 that have been approved. The Government reserves the right to send a representative(s) to witness production acceptance testing. The Contractor shall notify the Government of any changes to the approved Acceptance Test Procedures. Contractor shall make available documented acceptance test results with each system upon delivery to the Government. Inspection and acceptance shall be conducted at source.

3.2.3 Testing. The Contractor shall make available for the Government's review, all previous and current test results concerning the performance, reliability, maintainability, availability, environmental conditions and safety of the laser system.

3.3 PROGRAM SUPPORT.

3.3.1 Program Management. The Contractor shall develop and implement an innovative management plan that clearly defines how the SOFLAM Program will be managed and controlled. The Contractor shall be responsible for overall system performance and shall define and maintain appropriate subcontract and associate contract relationships to support all necessary requirements, allocations and interface. The Contractor shall designate a single point of contact (POC) specifically charged with the responsibility for accomplishment of the performance and schedule requirements set forth by this SOW. The Government shall have access to the Contractor's facilities throughout the life of the agreement of this SOW. The POC shall be the focal point for all technical communication. Program Management shall have the requirement to informally (phone call or e-mail) report program status.

3.3.2 Progress Reports. The Contractor shall submit progress reports identifying detailed work and schedule status of on-going work only if there are negative deviations to the established production rate set within the contract until such deviations are corrected. (CDRL A001).

3.4 RELIABILITY/MAINTAINABILITY

3.4.1 Failure Reporting, Analysis and Corrective Action System (FRACAS). The Contractor shall furnish a Failed Item Analysis Report for each failed item occurring under this contract during Acceptance Testing or Warranty Returns (i.e., Quality Deficiency Reports (QDRs), (DR), etc.). Contractor format and content is acceptable. The Contractor shall have an established closed loop failure reporting system, procedures for analysis of failures to determine cause, and documentation for recording procedures for analysis of failures to determine cause, and documentation for recording corrective action taken. The Contractor shall have a mechanism in place for feedback of field product performance, problems, failures, and shall implement a cause and corrective action system. The Contractor's existing data collection, analysis, reporting and corrective

action system shall be used for field failure reporting. Failure data shall be isolated to the lowest replaceable assembly (LRU). The field failure reporting and corrective action system shall identify failures, prioritize failure trends, analyze failure modes and causes, and track solution effectiveness. The Contractor shall provide a Failure Summary Analysis Report for each system repaired or replaced under warranty. (CDRL A002).

3.4.2 Performance. The Contractor shall notify the Government of any and all performance related data that would both positively and negatively impact the reliability, maintainability, availability and/or supportability of the SOFLAM laser system. The Government may test, validate, verify and/or certify any and all of the Systems performance parameters to verify compliance with the AN/PEQ-1C Performance Specifications other than those specifications or performance requirements not previously identified or contained in the AN/PEQ-1B specification PS/03/805/027, dated 03 November 2003.

3.4.3 Reporting. The Contractor shall provide a reliability report on all testing in accordance with environmental requirements 3.7 to achieve reliability of 3.6.1 of the performance specification. (CDRL A011). In addition a Pre-Lazing Analysis for on the AN/PEQ-1C will be included in the report.

3.5 CONFIGURATION MANAGEMENT (CM).

Maintain a Configuration Management (CM) program IAW the Government approved CM plan for the Special Operations Forces Laser Marker (SOFLAM) that includes an organizational structure with configuration control methods and audits for the duration of this contract. The Contractor shall have an established, Government verifiable, CM Program with control systems in place for the contract life. The Contractor's CM program shall be under the general guidance of MIL-HDBK-61A and shall provide configuration identification, configuration control, configuration status accounting, of all new and/or modified hardware, firmware, software, and documentation. The Program shall address the Contractor's procedures for CM; configuration reviews; and preparation, review and processing of Requests for Deviations and Waivers and Engineering Changes. The Production Baseline (PBL) shall be established after first delivery. The PBL shall support interchangeability and interoperability to the replaceable part level. All baselines shall be documented in the Contractor's configuration status accounting database. The Contractor shall provide drawings as required, whenever a configuration change causes change or revision to the PBL drawings. The latest revision of drawings shall be submitted to the Government throughout the life of the contract (CDRL A003). The Contractor shall host a Limited Production Readiness Review by 30 November 2006 to demonstrate that the AN/PEQ-1C SOFLAM Laser Marker CLASS I ECP is under Configuration Management Control. Demonstration will be limited to reporting of document control of new drawings, procedures, and test equipment control for the new product and will be summarize in single report or presentation. Deliverable will be the final CLASS I ECP document for signature (CDRL A012).

3.5.1 Configuration Identification (CI). The Functional Baseline and Product Baseline shall identify the hardware configuration of the Laser Marker. The Functional Baseline is defined by the system specification. The Engineering Drawings, Associated Parts List, and Engineering and Logistics Life Cycle Documentation define the PBL. Labels for the AN/PEQ-1C shall comply with MIL-STD-130L in accordance with 3.5.4.1 of the performance specification.

3.5.2 Configuration Control (CC). The hardware PBL shall be controlled by Form, Fit, Function, Interchangeability and Interoperability in consonance with the Government Maintenance Concept of organizational to Depot repairs. The Contractor shall submit for Government approval, all proposed changes that impact the Form, Fit, Function, Interchangeability or Interoperability of the current system configuration in accordance with the Contract Data Requirements Lists.

3.5.2.1 Engineering Change Proposal (ECP). The Contractor shall prepare an Engineering Change Proposal (ECP), under the general guidance of MIL-HDBK-61A, for any changes to the approved Functional Baseline and/or Product Baseline. Class I and/or Class II ECP definitions shall be interpreted as defined in MIL-HDBK-61A. Class I ECPs shall require at a minimum a Revision or Part Number change to the Laser Marker dependent upon system impact to form, fit, function or cost. The Government shall dictate to the Contractor whether a Part Number or Revision to the Laser Marker is required for Class I ECPs. Any requests for Deviations, Waivers, and Notice of Revision (NOR) shall be submitted through the Contracting Officer for Government review and approval. Drawing updates for Revisions and/or Part Number changes shall be completed at the Contractor's expense to include all technical documentation required by the Government. The Contractor shall provide ECPs via electronic mail and hard copy for Government review and approval. (CDRL A004, A005, A006, A007)

3.5.2.2 Non-Class I Changes. For those changes not affecting form, fit, or function (i.e. parts substitution, changes not impacting contract/delivery schedule, or cost, etc.), the Contractor shall document implementation of Class II ECPs with change to revision letter of the part number by the Configuration Status Accounting database outlined in paragraph 3.5.3 for Government record. The Contractor shall provide Class II ECPs to the Government for concurrence of Classification assigned affecting the top-level system drawing. (CDRL A004)

3.5.3 Configuration Status Accounting (CSA). A CSA database will be proposed by the Contractor and approved by the Government. All baselines, ECPs, deviations and waivers shall be documented in the Contractor's CSA database. The Government will utilize the Contractor's CSA database as the single tracking system for each configured hardware and software item for the Laser Marker. The Contractor shall provide the Government the CSA database via electronic media. (CDRL A008)

3.6 INTEGRATED LOGISTICS SUPPORT (ILS). This Section outlines the Government's ILS requirements for the SOFLAM Program. These requirements include, but are not limited to, Maintenance Planning and execution, Technical Manuals, Training, and warranty.

3.6.1 Contractor Logistics Support (CLS). The Contractor shall provide Life Cycle Support for the SOFLAM program for a period of five (5) years from date of contract award to include spare parts as required on individual delivery order. The Contractor shall provide a standard commercial warranty on the SOFLAM program for parts and labor for each System; the Contractor shall provide Original Equipment Manufacturer (OEM) level repairs and service under that warranty program.

3.6.2 Warranty. The Contractor shall provide a standard commercial warranty on the SOFLAM program, covering any damage or degradation of performance due to manufacturing or failures associated with normal use. The Contractor will be responsible for the cost associated with shipping and handling of warranty returns (CONUS and OCONUS) from the Contractor to NSWC Crane. Warranty repair turn around time shall not exceed 60 calendar days after receipt of the failed SOFLAM system. All failures returned to the OEM for repair will have a Return Material Authorization (RMA) number assigned by the Contractor. The Contractor shall perform inspection and failure analysis on all returned Laser Marker returned for warranty repair. This SOW requires the Contractor maintain SOFLAM spares, repair parts, and subassemblies necessary to meet the required repair turnaround time (TAT) and support the quantity of SOFLAM systems for the performance period under the terms of this contract.

3.6.2.1 The Contractor shall be required to restore the repaired SOFLAM system to a like new cosmetic condition. Any damage to protective finishes shall be repaired to the extent necessary to provide adequate protection during field usage, corrosion prevention and structural integrity. The Contractor shall be required to replace all damaged markings, identifications, and decals when the markings, identifications, or decals become unreadable.

3.6.2.2 The Contractor shall ensure all repaired, upgraded, or modified SOFLAM system meet or exceed the original performance specifications. Scratches, delaminating or other optical flaws on the optics will be replaced only if it degrades system's performance or may deteriorate to degrade system's performance.

3.6.2.3 After the repaired SOFLAM system passes acceptance testing at the Contractor's facility, the Contractor shall ship the repaired System to NSWC Crane for inspection and forwarding to the designated User.

3.6.2.4 The Contractor shall ensure that each repaired and serviceable SOFLAM system is packaged IAW best commercial practices.

3.6.3 TECHNICAL DATA.

3.6.3.1 Operators/Maintenance Technical Manual. The Contractor shall provide a Commercial Off-the-Shelf (COTS) Operator's and Maintenance Manual using MIL-DTL-24784/4B as guidance. The Government will review the commercial manuals using guidance in MIL-DTL-24784/4B. The Operators Manual at a minimum shall include introduction, Warnings, Cautions, and Notes, Safety, Preparation for use and installation, Principles of Operation, Maintenance and Servicing Instructions (preventive and corrective), Preparation for Shipment, Parts List, Operational and Maintenance Illustrations, and information on the functionality of the Laser Marker, its components/accessories, system operation from turn-on to system shut down including adjustments, and operator checks and services. The Technical Manual shall be no larger than 5.5 X 7 inches.

The Contractor shall provide unit/organizational level Operator and Maintenance manuals with each delivered SOFLAM system IAW with the guiding Performance Specification (AN/PEQ-1B or AN/PEQ-1C) and any restrictions imposed by the Laser Safety Release Letter. A Technical Manual start of work meeting shall be held concurrent with the post award conference to ensure all requirements are reviewed and agreed upon. The Operator and Maintenance Manual shall be provided IAW (CDRL A009).

3.6.3.2 Data Validation. The Contractor shall have a process in place that provides for the validation of the adequacy and technical accuracy of the Technical Manual. The Government will verify and approve the accuracy and completeness of the Technical Manual provided by the Contractor. Any discrepancies shall be corrected by the Contractor at no additional expense to the Government.

3.6.4 SUPPLY SUPPORT.

3.6.4.1 Proposed Spare Parts List for Spares Acquisition Integrated with Production (SAIP). The Contractor shall employ the concept of concurrent release of spare orders with identical parts as installments on the production unit. The Contractor shall provide a complete proposed spare parts listing of all the parts that identifies the SOFLAM system, which can be removed and replaced at the Organizational Level and repaired at Depot Level IAW (CDRL A010). The Contractor shall identify which Proposed Spare Parts are repairable at O-level and which are repairable at D-level. The Proposed Spare Parts list shall be delivered in a top-down breakdown format of the SOFLAM system and shall include repairable, replacement parts (consumables) and long lead time items. Each item on the Proposed Spare Parts List shall be priced and available for ordering. The Proposed Spare Parts List shall contain the part number, nomenclature, CAGE, Quantity, commonality to AN/PEQ-1A, and unit price. The Proposed Spare Parts List shall include the spares based upon failure analysis to support a 10 percent / per year failure philosophy.

3.6.5 Packaging, Handling, Storage and Transportation. The Laser Marker System is classified as Controlled Item Inventory Codes (CIIC) VII. Packing shall be IAW MIL-STD-2073/1D(1), Level A marking shall be IAW MIL-STD-129P. Units shall be shipped in accordance with the terms and conditions of the contractual document, SEE SF 26 BLOCK 11 SHIP TO MARK FOR.

The Contractor shall ensure that when the SOFLAM system is packaged in its field or shipping case, it is capable of being transported on standard transportation system, commercial or military. The Contractor shall also ensure when the SOFLAM system is in its shipping container, it shall withstand, without physical damage or degradation of performance, transportation modes of commercial air, truck, and all types of Army/Navy cargo or combat vehicles as well as Naval fast Boats and Submersible Diving Vehicles (SDVs).

Labeling and marking requirements shall be IAW MIL-STD-129P.

3.6.6 Safety.

3.6.6.1 Environmental and HAZMAT. The Contractor shall have an established Environmental and HAZMAT program to ensure the system design, development, testing, evaluation, operations, and maintenance comply with federal, state, and local environmental laws, regulations, shipping regulations, policies, treaties, and agreements. The Contractor shall perform a comprehensive Environmental, Safety and Health (ESH) analyses and provide, if requested, an Environmental Safety and Health Plan addressing Environmental Safety Hazards, Support requirements associated with using hazardous materials, and Cost effective pollution prevention programs. The contractor shall identify any hazards containing within the product delivered (i.e. Material Safety Data Sheets) required for establishing the program.

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP TM OTHER X

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
LASER MARKER (SOFLAM)		

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A011	Reliability Reporting of Testing	

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI- RELI-81315	SOW PARA 3.4.3	NSWC, CRANE, CODE 805E

7. DD 250 REQ	9.DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
LT	SEE BLK 16	ASREQ	ASREQ
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**
A			ASREQ

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE
INSERT IN SECT. B

16. REMARKS:

BLK 4 - BLK 10 of Data Item - In contractor format acceptable Best Commercial Practice.

BLK 8 - The government will review the reliability report on all testing IAW environmental requirements to achieve reliability requirements. In addition a Pre-lazing Analysis for the AN/PEQ-1C will be included in the report in accordance with the contract SOW. Written comments to be incorporated in the final will be provided by the Government within 30 days.

BLK 9- DISTRIBUTION STATEMENT D AND DESTRUCTION NOTICE APPLIES.

BLKs 10,11, 12, 13 - -Submit a Reliability Report on all testing for Government Furnished Equipment. Representative of production line.

BLK 14 - Submit the final report in Microsoft Word/EXCEL document format via email and hard copy.

Addressee List: (AL-01)
COMMANDER
(b)(6)
NSWC CRANE
300 HIGHWAY 361
CRANE IN 47522-5001
(b)(6)

(AL-02)
COMMANDER
(b)(6)
NSWC CRANE
300 HIGHWAY 361
CRANE IN 47522-5001
(b)(6)

14. DISTRIBUTION			
a. ADDRESSEE	b. COPIES (e-mail) Draft	Final Reg	Final Repro
AL-01		1	
AL-02		1	
15. TOTAL	0	2	0

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE

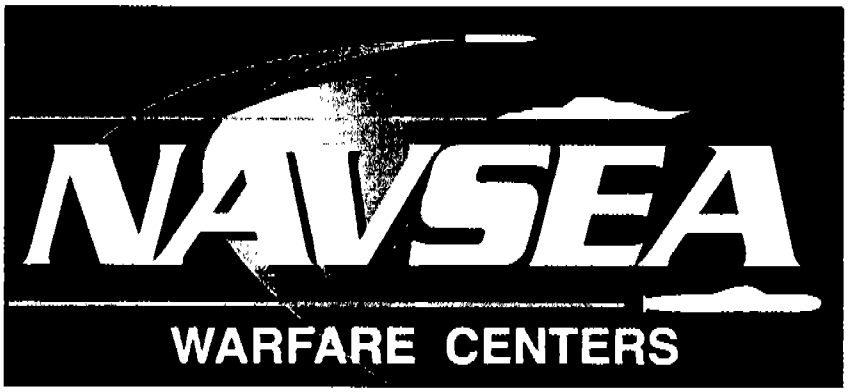
DD Form 1423-1, 1 Jun 90 page __ of __

NIGHT VISION/CHEMICAL AND BIOLOGICAL SENSORS DEPARTMENT

Code 805

Performance Specification
For
AN/PEQ-1C Special Operations Forces Laser Marker (SOFLAM)

PS/06/805/042
Revision A



February 22, 2006

NAVAL SURFACE WARFARE CENTER CRANE DIVISION NIGHT VISION/CHEMICAL AND BIOLOGICAL SENSORS (CODE 805)
CRANE DIVISION
CRANE, IN 47522-5001

RECORD OF CHANGES AND REVISIONS

REV	CHG NO	DATE OF CHG OR REV		DESCRIPTION	INITIALS AND DATE
OR		12 Jan 2006		Original Release	MJM 01/12/06
A		22 Feb 2006		Incorporated Changes from Post Award	MJM 02/22/06

Table of Contents

1. SCOPE

This specification establishes the United States Special Operations Command (USSOCOM) performance requirements for the AN/PEQ-1C Special Operations Forces Laser Marker (SOFLAM). The AN/PEQ-1C (b)(3)
(b)(3)

2. APPLICABLE DOCUMENTS

2.1. General.

The following specifications and standards form a part of this Performance Specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the Department of Defense Index of Specifications and Standards (DODISS) as provided from the Defense Standardization Program (DSP) World Wide Web site at http://www.dsp.dla.mil.

2.2. Government documents.

2.2.1. Specifications, standards, and handbooks.

The following specifications, standards, and handbooks form a part of this document to the extent specified herein.

Standards

MIL-STD-461E	Electromagnetic Interference
MIL-STD-810F	Environmental Test Methods
MIL-HDBK-454A	General Guidelines for Electronic Equipment
(b)(3)	
TBD (joint created doc)	Electrical Circuit, 28 Volt DC Transient Characteristics
MIL-STD-1425A	Safety Design Requirements for Military Lasers and Associated Support Equipment
MIL-STD-1472F	DOD Design Criteria Standard – Human Engineering
MIL-STD-1913 (Notice 1)	Dimensioning of Accessory Mounting Rail for Small Arms Weapons
MIL-STD-13231	Marking of Electronic Items
MIL-STD-130L	Identification Marking of U.S. Military Property

2.2.2. Other Government documents, drawings, and publication.
The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation

Federal Standards

FED-STD-595B	Colors Used in Government Procurement
ANSI Z136.1-2000	American National Standard for Safe Use of Lasers

2.2.3. Non-Government Publications.
The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

(b)(3)

2.3. Order of Precedence.
In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. Requirements

3.1. Description.
The AN/PEQ-1C is (b)(3)
(b)(3)

3.2. Major Components.
The AN/PEQ-1C system shall consist of the components outlined in this section as a minimum.

3.2.1. Laser Marker.
An integrated laser designator and laser marker shall be provided that meets all of the requirements of this specification.

3.2.2. Lens Cleaning Kit.
A lens cleaning kit shall be provided that shall consist of one package of lens cleaning tissue and a 2 ounce plastic dropper bottle of lens cleaning compound.

3.2.3. [redacted] shall be provided. The [redacted] shall be fully operable in each of the environments as specified in section 3.7. The [redacted] shall have a [redacted] The [redacted] shall be protected from [redacted] by a [redacted]

3.2.4. [redacted] shall be provided. The [redacted] shall be fully operable in each of the environments as specified in section 3.7. The [redacted] shall have a [redacted] The [redacted] hall be protected from [redacted] by a [redacted]

3.2.5. [redacted] The [redacted] shall interface to [redacted] The [redacted] shall be [redacted] This [redacted] shall have a [redacted]

3.2.6. [redacted] shall be provided that is dimensioned to [redacted] The [redacted] shall be constructed from [redacted] The [redacted] shall have a [redacted]

3.2.7. Operator's Manual.
One operator's manual shall be included with each AN/PEQ-1C system.

3.2.8. Field Carrying Case.
A heavy-duty, compartmented, water resistant field carrying case, equipped with Velcro or flap snaps, shall be provided to carry the AN/PEQ-1C in a field environment. The field case shall provide space for the AN/PEQ-1C, operator's manual, [redacted] and a lens cleaning kit. The field carrying case shall be designed to be carried from either a standard US Army Individual Equipment belt or pack. The case shall be compatible with NATICK web gear.

3.3. Performance Characteristics.

3.3.1. [redacted]

3.3.1.1. Modes.
The AN/PEQ-1C shall have four modes: Off, [redacted]

3.3.1.1.1. Off Mode.
In the `Off` mode, the current drawn by the AN/PEQ-1C shall not exceed the leakage current of the power connector input FETs. When the AN/PEQ-1C is switched from the `Off` mode to [redacted] the laser shall capable of [redacted]

3.3.1.1.2. (b)(3)
In the (b)(3) the AN/PEQ-1C shall provide (b)(3)
(b)(3)

3.3.1.1.3. (b)(3)
In the (b)(3) the AN/PEQ-1C shall provide (b)(3)
(b)(3) In the event of an over temperature condition, the (b)(3) shall be (b)(3). If over temperature is encountered (b)(3) the AN/PEQ-1C shall continue (b)(3) (b)(3) should only be (b)(3)
(b)(3)

3.3.1.1.4. (b)(3)
In the (b)(3) the AN/PEQ-1C shall provide (b)(3)
(b)(3) In the event of an over temperature condition, the (b)(3)
(b)(3)

3.3.1.2. (b)(3)
The AN/PEQ-1C, (b)(3) shall be capable of (b)(3)
(b)(3)

3.3.1.3. Emission Wavelength.
The AN/PEQ-1C (b)(3)
(b)(3)

3.3.1.4. (b)(3)
In the (b)(3) the AN/PEQ-1C shall (b)(3)
(b)(3)
(b)(3) shall be compatible with
(b)(3)

3.3.1.5. (b)(3)

3.3.1.5.1. (b)(3)
Within a (b)(3) of (b)(3) the (b)(3) shall be
(b)(3)

3.3.1.5.2. (b)(3)
The (b)(3) shall not (b)(3) over the operational temperature range of the AN/PEQ-1C. As a goal the (b)(3) will be (b)(3) over the operational temperature range of the AN/PEQ-1C. The (b)(3)
over the operational temperature range.

3.3.1.5.3. (b)(3)

3.3.1.6. (b)(3)

3.3.1.7. (b)(3)
The AN/PEQ-1C shall (b)(3)
(b)(3)

3.3.1.8. (b)(3)

3.3.1.9. (b)(3)
The AN/PEQ-1C (b)(3)
(b)(3)

a) (b)(3)
b)
c)

3.3.1.10. (b)(3)
The AN/PEQ-1C shall (b)(3)
(b)(3)

3.3.2. (b)(3)
(b)(3) the AN/PEQ-1C shall (b)(3)
(b)(3)

3.3.2.1. (b)(3)
The AN/PEQ-1C shall (b)(3)
(b)(3)

3.3.2.2. (b)(3)

a.
b.
c.
d.
e.
(b)(3)

3.3.2.3. (b)(3)

3.3.2.4. Range Error.
The AN/PEQ-1C (b)(3)

3.3.2.5. (b)(3)

3.3.2.6. (b)(3)
The AN/PEQ-1C shall (b)(3)
(b)(3)

3.3.2.7. (b)(3) shall be (b)(3)

3.3.2.8. (b)(3)

3.3.3.

3.3.3.1 (b)(3)

3.3.3.2. (b)(3)

3.3.3.3. (b)(3)

3.3.3.4. (b)(3)

3.3.3.5. (b)(3)
The SOFLAM (b)(3) (b)(3) (b)(3) of the SOFLAM. (b)(3) (b)(3)

3.3.3.6. (b)(3)

3.3.3.7. (b)(3)
The AN/PEQ-1C shall (b)(3) The AN/PEQ-1C (b)(3)

3.3.3.7.1. (b)(3)

3.3.3.7.2. (b)(3)

3.3.3.7.3. (b)(3)

3.3.3.7.4. (b)(3)

3.3.4. (b)(3)

(b)(3)

3.3.4.1. Shot Count.
When the AN/PEQ-1C is switched from the `Off` mode to any other mode, the current shot count shall be displayed for 5 ± 2 seconds. The AN/PEQ-1C shall cease displaying the shot count if the laser is fired in (b)(3) (b)(3) Displayed count is actual count divided by 100.

3.3.4.2. (b)(3)
As a goal, a (b)(3) will be provided.

3.3.4.3. Laser Energy.
The lasing indicator labeled XMT shall be a (b)(3) (b)(3) of the AN/PEQ-1B.

3.3.4.4. (b)(3)

3.3.4.5. High Temperature.
A high temperature indicator shall be provided that shall illuminate when the laser transmitting cavity (b)(3) The indicator shall remain illuminated as long as the high temperature condition exists.

3.3.4.6. (b)(3)

3.3.5. Controls.

3.3.5.1. Required Controls.
The AN/PEQ-1C shall have the following operator accessible controls and indicators:

a) Laser fire button guarded for accidental engagement
b) Laser OFF (b)(3) select switch mode selection
c) Laser (b)(3) switch
d) (b)(3) control with (b)(3)
e) Laser (b)(3)

3.3.5.2. Control Illumination.
All controls shall not emit external lighting.

3.4. Interfaces.

3.4.1. Mechanical Interface.

3.4.1.1. Tripod Interface.
Each AN/PEQ-1C shall have one ¼-20 UNC threaded hole located near the center of gravity. The AN/PEQ-1C tripod interface shall be backward compatible with the AN/PEQ-1B Groundhog tripod.

3.4.1.2. Rails.
The AN/PEQ-1C shall have (b)(3) Picatinny rails mounted to the top of the unit for mounting (b)(3) and other fielded hardware as applicable. (b)(3)
(b)(3)
(b)(3) with the AN/PEQ-1C.

3.4.2. Electrical Interface.

3.4.2.1. Power.

3.4.2.1.1. Input Voltage.
The AN/PEQ-1C shall not be damaged and shall have full performance when supplied (b)(3)
(b)(3)

(b)(3)

3.4.2.1.2. Power Sources.
The laser marker shall be capable of operating without damage or degradation over all environments (goal with deviations approved) specified within this document when power is provided (b)(3)
(b)(3)

a. (b)(3)

b. (b)(3)
c.
d.

3.4.2.1.3. Input current.
When operating at (b)(3) (b)(3) and IAW the (b)(3) specified in this document, the AN/PEQ-1C (b)(3) (b)(3) Over the full operational temperature range specified in this document, (b)(3) (b)(3) and IAW the (b)(3) specified in this document, the AN/PEQ-1C (b)(3) (b)(3)

3.4.2.2. (b)(3)
The AN/PEQ-1C (b)(3) shall be as defined in (b)(3) (b)(3)

3.4.2.3. System Programming Connector.
A System Programming connector shall be provided to allow programming or reprogramming of any part in the internal System Programming chain. A tamper resistant cap shall be provided with the connector.

3.4.2.4. (b)(3)
The AN/PEQ-1C shall include an option for the capability to (b)(3) (b)(3)

(b)(3)

3.5. Physical Characteristics.

3.5.1. Weight.
The AN/PEQ-1C shall weigh (b)(3) maximum (Threshold). As an objective the AN/PEQ-1C shall weigh no more than (b)(3)

3.5.2. Dimensions.
AN/PEQ-1C dimensions shall not exceed (b)(3)

3.5.3. Color and Finish.
The exterior color and finish of the AN/PEQ-1C system shall be in accordance with FED-STD-595B, color FS 30324. Exterior surfaces must be subdued and non-reflective.

3.5.4. Labels.

3.5.4.1. Each AN/PEQ-1C shall be marked with a Unique Identification (UID) label. This label shall comply with Construct 2 as detailed in MIL-STD-130L. It shall as a minimum list the cage code, original part number, and serial number of each AN/PEQ-1C.

3.5.4.2. All exterior labels shall be of a subdued, anti-reflective style. All labels shall match the base color of the AN/PEQ-1C. The labels shall not be "glow in the dark" style.

3.5.5. Buttons/Knobs.
All buttons (including the fire button) and knobs shall be black and subdued.

3.6. Support Requirements.

3.6.1. Reliability.
The AN/PEQ-1C shall have a mean time between failures (MTBF) of (b)(3) (b)(3)

3.6.2. Maintainability.

3.6.2.1. Shot Counter.
The AN/PEQ-1C shall contain a shot counter that will advance one count for every pulse fired. The shot counter shall be capable of counting all laser pulses, including those determined as missed pulses, over the estimated life of the laser transmitter.

3.6.2.2. Radioactive materials.
No radioactive materials shall be used.

3.7. Environmental Requirements.

3.7.1. Temperature.

3.7.1.1. Operating Temperature.
The AN/PEQ-1C shall operate without damage or degradation during exposure to temperatures ranging from (b)(3)

3.7.1.2. Storage Temperature.
The AN/PEQ-1C shall operate without damage or degradation following storage at temperatures ranging from (b)(3)

3.7.1.3. Temperature/Altitude.
The AN/PEQ-1C shall operate without damage or degradation during exposure up to (b)(3) and following exposure at (b)(3) (b)(3)

3.7.2. Shock and Vibration.

3.7.2.1. Bench Handling.
The AN/PEQ-1C shall operate without damage or degradation after test in accordance with MIL-STD-810F, Method 516.5, Procedure VI.

3.7.2.2. Transportation Vibration (Loose Cargo).
The AN/PEQ-1C shall operate without damage or degradation following exposure to transportation vibration in accordance with MIL-STD-810F, Method 514.5, Procedure II, Category 3, with a total test time of three hours.

3.7.2.3. Mechanical Vibration.
NGLS shall run a swept sine survey to identify mechanical resonances and shall develop a random ESS curve from that data to submit to NSWC Crane for approval for Qualification and ESS.

3.7.3. Humidity.
The AN/PEQ-1C shall operate without damage or degradation after exposure for 48 hours to humidity of (b)(3) Equipment shall be non-operating during humidity exposure, and optical surfaces and connectors are to be covered.

3.7.4. Salt Fog.
The AN/PEQ-1C shall operate without leakage, damage or degradation after exposure to a salt fog environment as specified in MIL-STD-810F Method 509.4. The AN/PEQ-1C shall be exposed for (b)(3) (b)(3) Optical surfaces and connectors are to be covered. Equipment shall be non-operating during exposure.

3.7.5. Dust (Fine Sand).
The AN/PEQ-1C shall operate without damage or degradation after exposure to blowing dust as specified in MIL-STD-810F Method 510.4 Procedure I. The duration for steps 3 and 7 shall be (b)(3) and the air velocity shall be (b)(3) Optical surfaces and connectors are to be covered. A degraded finish is permissible with the exception that markings must still be legible.

3.7.6. Immersion Resistance.
The AN/PEQ-1C shall be capable of operating without damage, moisture intrusion or degradation to performance following exposure to a salt-water depth of (b)(3) (b)(3) using salt water using MIL-STD-810F Method 512.4 as a guide.

3.8. EMI.

3.8.1. Emissions.
In the operational configuration, the AN/PEQ-1C shall be characterized for the emission requirement RE102 of MIL-STD-461E.

3.8.2. Susceptibility.

In the operational configuration, the AN/PEQ-1C shall be characterized for the susceptibility requirement RS103 of MIL-STD-461E.